INDEX TO VOLUME IV

New scientific names are printed in full-faced type

Abies, 181, 271; amabilis, 184; arizonica, 184; balsamea, 186, 187; concolor, 33, 182, 183, 184; grandis, 66, 184, 272, 273, 274, 275, 276; lasiocarpa, 182, 184; magnifica, 182, 183, 184, 186; new host of Fomes laricis, 33; nobilis, 184, 186; shastensis, 182, 183, 184, 187

Abutilon, 393

Acer, 274; glabrum, 274, 276; rubrum, 186, 187, 188; saccharinum, 184, 185, 186; saccharum, 185, 275

Acetic fermentation, following soft rot of sweet potato, 312

Acid injury, dicotyledonous weeds, 92; pine seedlings, 91

Acrocystis, batatas, 405.

Acrostalagmus, 393, 396

Actinomyces, 405; chromogenus, 405; scabies, 396

Actinopelte japonica, cause of leaf spot of oak new to America, 396

Aecidium, 261, 263; blasdaleanum, 41, 261, 262, 263, 266, 267; pourthiaeae, 262

Aesculus hippocastanum, perfect stage of leaf spot fungus on, 399

ADAMS, J. F., see ORTON, C. R.

Agave, 75

Agropyron caninum, 411; repens, 411, inoculations from barberry rust, negative, 22, inoculations from uredospores of timothy rust, negative, 22; smithii, 411; tenerum, 411, artificial infections from barberry, 21

Agrostis alba, 110, 111, 411; stolonifer, 411

Almond, 75

Alnus, 276; glutinosa, 275; oregona, 184; tenuifolia, 184, 275, 276

Alternaria, 297, 403, 405, 406, relation to fruit spot of apple, 102–105, 334, to shedding of cotton bolls, 328, 330; citri, 54

Amaranthus retroflexus, Cystopus bliti on, 57

Amelanchier, 339, 398; alnifolia, 261, 266, 267, 340; canadensis, 262; florida, 41, 261; pallida, 261; vulgaris, 262

American Phytopathological Society, report of fifth annual meeting, 36

Ammonium copper carbonate, use for damping-off, 79, 80, 81

Ampelopsis tricuspidatum, Cladosporium disease of, 42, 189

Amygdalus persica, 187

ANDERSON, H. W., Peronospora parasitica on Arabis laevigata, 338

Andropogon hallii, 108, 111; nutans, 109

Anthaenantha rufa, 108, 111

Anthoxanthum odoratum, 411

Anthracnose, apple, 217; Asclepias speciosa, 410; cotton, 42; grasses, 106; raspberry, 407

Ants, in rot cavities, 385

Apple, 398; anthracnose, 217; Baldwin spot, 121; bitter pit, 121, 402; blossom blight, 27–30, per cent in Missouri, 29; blossom rot, 403; collar rot, 43; core rot, 403; Fomes fomentarius on, 339; Fomes pinicola on, 275; frog eye, 396; fruit pit, 121; fruit spot, 333; Jonathan spot, 102–105, 334, 402, 403, 406; leaf spot, 396; Melanops quercuum on, 49; rots, 403; rust, 261, 264, 401; scab, 52, barium sulphid as spray for, 412, lime-sulphur as spray, 42, sulphur as spray, 44; scald, 403; Sclerotinia, inoculations with, 99; skin-crack, 405; stigmonose, 402, 403; Stereum hirsutum on, 275; stippen, 121; sulphur as spray for, 394; Wealthy spot, 333; York spot, 405

Apple-tree borer, relation to spread of collar rot, 43

286673

Arabis laevigata, 338
Aralia quinquefolia, 376
Armillaria mellea, 276; on potatoes, 322
Arrhenantherum elatinus, 110, 111
ARTHUR, J. C., A Gymnosporangium with repeating spores (abstract), 408
Arundinaria, 108, 112
Asclepias speciosa, new Colletotrichum on, 410
Ascochyta, 39; chrysanthemi, 378; hortorum, 38; parasitica, 64; piniperda, on spruce seedlings, 63, 64
Ascospore expulsion, 255–257; relation to temperature in Endothia parasitica, 52
Ascospore traps, 52
Aspidiotus perniciosus, introduction from China, 15
Asparagus, 75; rust, 14
Aspergillus niger, 403
Aster, 25
Avena sativa, 111

Bacillus amylobacter, 31; amylivorus, 31, 32; amylovorus, 27, 31, 33, cause of collar rot of apple trees, 43; cubonianus, 34; phytophthorus, 277; solanacearum, 277, 278
Bacterial disease, Erodium and Pelargonium, 221
Bacterial wilt, potato, 277; tomato, 278
Bacteriosis, potato, 278; tomato, 278
Bacterium erodii, 231, aerobism, 228, cultural characteristics, 224, growth in fermentation tubes, 229, inoculation experiments, 223, isolation, 223, moisture relation, 228, morphology, 229, sensitiveness to acids and alkalies, 229, thermal relations, 227; mori, 34
BAILEY, F. D., Notes on potato diseases from the Northwest, 321–322
BAILEY, I. W., see SINNOTT, E. W.
Barberry, rust, 21; positive artificial infections, 21; negative results, 22
Barium polysulphide, use as spray for apple scab, 412; for peach scab, 412
Bark disease, white pine, 376
Barley, 411; Helminthosporium diseases of, 46, 408; smuts, control by hot water treatment, 45, by formaldehyde, 46
BEATTIE, R. KENT, The use of lime sulphur wash as a remedy for apple scab (abstract), 42; The Citrus canker situation (abstract), 397; The organization of the plant disease survey (abstract), 403
Beech, see Fagus
BERG, ANTHONY, see GIDDINGS, N. J.
BESSEY, ERNST, Tylenchus dipsaci in the United States, 118
Betula, 272, 274, 339; fontinalis, 184, 185; lenta, 184, 186, 275; lutea, 184; nigra, 186; occidentalis, 184, 185, 272, 273, 274, 275, 276; papyrifera, 184, 185, 186, 187
Bibliographical citations, 53
Biological strains, Sphaeropsis malorum, 45
Biota, 375
Birch, see Betula
Bordeaux mixture, basic sulphates formed in, 151; chemistry of, 128; colors of, 151; for damping-off, 80; history of, 125; hot-bed disinfection, use for, 303; keeping qualities, 133; preparations or properties, 172–178; physical properties, 145–172; settlement of, 152; strength of mixtures, 128; types of, 172; weathering of, 138
Bitter pit, apple, 121, 402
Bitter rot, apple, 217; see also Glomerella
Black gum, 39
Black head of grain, 190
Black knot, histology of, 402
Black-leg, 40; cabbage, 46; Cruciferae, 46; potato, 277
Black rot, cabbage, 401; grape, 13; sweet potato, 50, 279, 305
BLAKESLEE, A. F., An improved method of making separation cultures (abstract), 43
Blight, apple, 31, 32; pear, 31, 32; spruce seedlings, 63
Blight canker, 27
Blight organism, spelling of specific name, 32–33
Blind staggers, caused by Rhizopus on corn, 306
Blister rust, pine, 41

BLODGETT, F. M., Comparative dusting and spraying experiments (abstract), 44; further studies on the spread and control of hop mildew (abstract), 400
Blossom blight, apple, 27; per cent on varieties in Missouri, 29
Blossom-end rot, tomato, 49, 345; enzymes, relation to, 348; fertilizers, effect of, 357; histology of, 368; lime, effect of, 364; moisture, effect of, 351; organisms, relation to, 347; soil relation, 356; rapidity of development, 367; sugar, effect of, 363; susceptibility of varieties to, 350
Blossom rot, apple, 403
Boll disease, cotton, 327
Botrytis, 72, 75, 393; cinerea, 403; douglasii, 65, 66, 74; vulgaris, cause of lemon gummosis, 54
BURKHOLDER, W. H., The perfect stage of the fungus of raspberry anthracnose (abstract), 407
Burl disease, Pinus virginiana, 6
BURRILL, T. J., Bacillus amylovorus vs. amylivorus, 31
BUTLER, O., Bordeaux mixture: I. Physico-chemical studies, 125–180
Brachiaria digitarioides, 111
Bromus inermis, 22; secalinus, 111; uniolioides, 109, 111
BROOKS, CHARLES, Blossom-end rot of tomato (abstract), 49, 345–374; and FISHER, F. D., Jonathan spot, bitter pit and stigmonose (abstract), 402; and FISHER, F. D., and COOLEY, J. S., Apple rots, (abstract), 403
Brown blotch, pear, 394
BROWN, NELLIE A., A snapdragon wilt due to Verticillium, 217
Brown rot, the fungus, 93–101, 398; apothecia, time of appearance, 98, character of asci and ascospores, 99; conidia, germination of, 95–98, size, 98, time of appearance, 98; hosts, 398; inoculation experiments with, 99
Brown-tail moth, see Euproctis chrysorrhoea
BYARS, L. P., A destructive nematode introduced into the United States (abstract), 45; Preliminary notes on the cultivation of the plant-parasitic nematode, Heterodera radicicola, 323–326

Cabbage, 75; black rot, 401; black-leg, 46; disease resistant, 47; Fusarium disease, 47; Sclerotinia on, 75; yellows, 47, relation of temperature to infection, 404, resistance to, 404
Calamagrostis canadensis, 411; epigeum, 108, 111
Canker, chestnut, 191, 233, 234
Camellia, blight, 376
Capsella bursa-pastoris, 47
Capsicum annuum, 287, 296
Carnation, stem rot, 406
CARPENTER, C. W., The Verticillium wilt problem (abstract), 393; a method of excluding mites from pure cultures (abstract), 394
Castanea crenata, resistance to bark disease, 15; dentata, bark disease of, 15
Castanopsis chrysophylla, infected by Cronartium quercus, 8
Cauliflower, 75
Cedar rust, 262, 263
Cedar, yellow, rust on, 408
Celery, bacterial leaf spot, 395; decay in storage, 45; late blight, 45; pink rot, 45; Sclerotinia libertiana on, 45; Septoria petroselina on, 45
Cenchrus tribuloides, 108, 111
Cephalothecium roseum, 328, 329, 403
Cereal rusts, relation of grass rusts to, 411
Cercospora personata, on peanut, 397
Certification of potato seed stock, 39
Chaetostroma, 106
Chamaecyparis lawsoniana, 375; nootkatensis, 262
Charcoal rot, sweet potato, 50, 305
Chemicals, gum formation induced by, 53
Chenopodium album, 204, 205
Cherry, 398; black knot on, 340; inoculations with Sclerotinia, 99
Chestnut, American, bark disease of (see Endothia parasitica); disease, little-known, 49; injection of trees with chemicals, 412; structure of normal wood and bark, 191; of wood and bark affected by Endothia, 191

Chestnut, Italian, Polyporus on, 273
Chestnut-blight fungus, insects as carriers of, 52; longevity of pycnospores in soil, 51; wind, dissemination of, 51
Chestnut oak, canker of, 44
Chrysopogon nutans, 109, 111
Chytridium, 55, 56; pollinis pini, 56; vagans, 56
Citations, bibliographical, 53
Citrus, canker, 397; fungous gummosis of, 54; gum formation induced by chemicals, 53; Pestalozzia blight, 376; trifoliata, canker of, 397
Cladosporium, 54, 64; carpophilum, 49, 408; fulvum, 189, 398; herbarum, 42, 190; uvarum, 42, 190
Classification of fungi, 119
Clavaria muscigena, 407
Claviceps, triseptate spores in, 386
Clematis jackmani, 39; paniculata, 39
Clover, alsike, disease of, 410
Clover, red, disease of, 410
Coconut, leaf disease, 376
Coleosporium, 25; inconspicuum, 6, 9
Collar-blight, apple trees, 43
Collar-rot, apple tree, 43
Colletotrichum, 106, 110, 411; bromi, 109, 110; cereale, 106, 107, 108, 109, 110; **graminicolum**, 110; lineola, 107, 109, 112; lineola pachysperma, 109, 110, 112; new species on clover, 410, on Asclepias, 410, on potato, 410; sanguineum, 110, 112; trifolii, 410
Comandra umbellata, 25
Commerce, relation of plant disease to, 18
Comptonia asplenifolia, 23, 409; peregrina, 23
CONEL, J. L., A study of the brown-rot fungus in the vicinity of Champaign and Urbana, Illinois, 93–101
Conferva bombycina, Rhizophidium on, 56
Conifers, damping-off of seedlings, 73–85; diseases of, 181, 184; fungicides for damping-off, 89–92; wood-destroying fungi on, 271
COOK, MEL T., Notes on economic fungi, 201–203; The southern bacterial wilt in New Jersey, 277–278: A Nectria parasitic on Norway maple (abstract), 396; and MARTIN, G. W., The Jonathan spot rot, 102–105; Orchards experiments in 1914 (abstract), 394; and SCHWARZE, C. A., A nursery disease of the peach (abstract), 394; and WILSON, GUY WEST, Cladosporium disease of Ampelopsis tricuspidatum, 189–190
COOLEY, J. S., see BROOKS, CHARLES
Copper, colors of the basic sulphates, 148; physical properties of the basic sulphates, 148
Copper sulphate, damping-off, test for, 78, 80, 89, 90, 91, 92; gum formation induced by, 53; per cent in various Bordeaux mixtures, 128
Corn, 75; smut, infection experiments, 411
Corrosive sublimate, for seed disinfection, 303
Corticium, 406; vagum solani, 38, 203, 406
Coryneum beyerinckii, 54
Cotton, 75; anthracnose, 42; dropping of bolls, 327; Verticillium wilt, 393
Cotton plants, lightning injury, 406
Crab apple, 398; inoculations with Sclerotinia on, 99
Crab flowering, rust on, 265
Crab, wild, affected by blossom-blight, 29
CRABILL, C. H., Notes on a fungous parasite of the San José scale, 217; A mutation in Phyllosticta (abstract), 396
Crane's bill, wild, bacterial disease of, 221
Crataegus, 41, 262, 272, 398; cerronis, 262; coccinea, 186; crus-galli, 30; douglasii, 261, 263, 266, 267, 276; rivularis, 261; tomentosa, 262
Creonectria ipomoeae, 280
CROMWELL, R. O., see FULTON, H. R.
Cronartium comandrae, 24, 25; comptoniae, 8, 23, 409; quercus, 6; ribicola, 43, 409
Crown gall, on poplars, 201
Crown rot, apple trees, 43
Cruciferae, affected by black-leg, 46

Cultures, methods with Fusaria, 286; nematodes, 323; separation, improved method of making, 43; of sterile host plants, 326
Curly dwarf, potato disease, 40
Currant, Cronartium ribicola on, 43
Cydonia japonica, 267, 398; vulgaris, 41, 266
Cylindrosporium pomi, 121
Cypress, pecky, 39
Cystopus, 55, 59; bliti, 57, 59, 60; candidus, 60; cubicus, 60; ipomoeae-panduranae, 51
Cytispora abietis, 64
Cytospora, 251

Dactylis glomerata, 108, 111, 411
Dahlia, 75; Verticillium disease of, 40, 393
Damping-off, coniferous seedlings, 73–87; use of disinfectants for control of, 89
Decaying wood, method of anatomical study, 403
Deciduous trees, wood-destroying fungi of, 271
Dentaria laciniata, 338
Desiccation, effect on spores of Endothia parasitica, 401; resistance of sporidia of corn smut to, 412
Dewberry, 75
Diaporthe, 293; batatis, 297, 300, 312
Dicladium graminicolum, 106, 110, 112
Diplodia gossypii, 47; natalensis, 47
Disease control, biological basis of, 11; environmental influences, effect on, 16; international view point of, 16; international coöperation in, 18
Disease resistance, cabbage, 47; tobacco, 48
Disinfectants, damping-off, use for, 89; soil, 398
Dissemination, chestnut blight fungus, by wind, 51, by insects, 52; stem rot, sweet potato, 301
Distichlis stricta, 204, 205
Douglas fir, 186
Downy mildew, grape, see Plasmopara viticola
DRECHSLER, CHARLES, Cotyledon infection of cabbage seedlings by the bacterial black rot (abstract), 401
Drought, effect on potatoes, 395
Dry rot, Fusarium, 40
Dusting, compared with liquid spraying, 44

EASTHAM, J. W., Bitter pit investigation by D. MCALPINE (Review), 121–123
Echinochloa crus-galli, 106, 111
Echinodontium tinctorium, 271
Economic fungi, notes on, 201–203
EDGERTON, C. W., A method of picking up single spores, 115–117
Eel worm, 40
Egg plant, rots of, 38; stem rot, 279, 317; Verticillium wilt, 40, 393
Elm, 39
Endothia, 191, 233; canker, 191, 233, 234; gyrosa, 251; parasitica, 51, 52, 191, 233, 236, depth of penetration, 200, growth of cankers, 249, longevity of spores, 401, inoculation, 238–248, morphology, 250–259, origin from China, 15, pathogenicity, 236–238; radicalis, 238, 244
Endothiella, 251
Environmental influences, effect on spread of diseases, 16
Eocronartium typhuloides, 407
Ericaceae, 70
Erodium, 221; texanum, 221, 222, 231
Euphorbia, 75
Euproctis chysorrhoea, introduction from Europe, 14
Expulsion of ascospores, 407

Fagus atropunicea, 184, 185; ferruginea, 275; silvatica, 275
Farm animals, agents in dissemination, stem rot, sweet potato, 301
Farm implements, agents in dissemination, stem rot, sweet potato, 301
FAWCETT, H. S., Fungous gummosis of citrus in California (abstract), 54
Ferrous sulfate, for damping-off, 90
Fertilizers commercial, effect on blossom-end rot of tomato, 309
Festuca, 109, 111; heterophylla, 109, 111
FIELD, ETHEL C., see HARTER, L. L.

Filiform leaf, tomato, 42
Fir, "conky," 33; Douglas, 273, 375
Fire blight, 27, 32
FISHER, F. D., see BROOKS, CHARLES
FITZPATRICK, HARRY M., The parasitism, biology and cytology of Eocronartium typhuloides Atk. (abstract), 407
FLOYD, B. F., Gum formation in citrus as induced by chemicals (abstract), 53
Fomes, 184; annosus, 275; applanatus, 185, 186, 339; fomentarius, 185, 339; geotropus, 39; igniarius, 185, 339; laricis, 271; leucophaeus, 275, 339; marginatus, 184, 275; pinicola, 184, 275; roseus, 186, 187; ulmarius, 39; ungulatus, 184
Formaldehyde gas, injury to potato tubers, 38
Formalin, for damping-off, 77, 78, 80, 81, 82, 89, 90, 91, 92
FROMME, F. D., Negative heliotropism of urediniospore germ-tubes of Puccinia rhamni (abstract), 407
Frost injury, to Picea rubens, 69
Fruit rot, 306; egg plant, 38; peanut, 397
Fruit spot, apple, 333
Fruits, plaster casts of, 113
FULTON, H. R., WINSTON, J. R., and CROMWELL, R. O., Cotton anthracnose: Some field problems and some field experiments (abstract), 42
Fungicide, new, 412
Fungicides, tests of for damping-off, 77–82, 89–92
Fungus, undetermined ascomycete, 202
Fusarium, 54, 74, 76, 279, 282, 300, 313, 317, 348, 405; acuminatum, 297, 299; batatis, 50, 51, 284–293, 296–300, 303, 305, 306, 312, 314, 317; on cabbage, 47; caudatum, 285, 287, 295, 297, 303; caudatum volutum, 297, 299; coerulium, 44, 297; conglutinans, 404; culture methods, 286; dry rot, cause of, 40; damping-off of pine seedlings, cause of, 89; erubescens, 345; hyperoxysporum, 285–293, 296, 297, 298; incarnatum, 297, 299, 300; inoculation experiments, on sweet potato, 287, on other hosts, 287; marti, 44; metachroum, 44; moniliforme, 76; natural classification of the species, 44; orthoceras, 284, 287, 295, 297, 303; orthoceras triseptatum, 297, 299; oxysporum, 44, 277, 284, 285, 287, 294, 295, 297, 299, 303; pure cultures from various hosts, 75; putrefaciens, 403; radicicola, 285, 287, 295, 297, 303, 403; solani, 44, 300; solani medium, 297; trichothecioides, 44; vasinfectum, 393, on okra, 40; wilt, 40, 393
Fusoma parasiticum, 75

GALLOWAY, B. T., PIERRE-MARIE-ALEXIS MILLARDET, 1
Gallowaya pini, 6, 9
GARDNER, M. W., Longevity of pycnospores of the chestnut blight fungus in soil (abstract), 51; see also HEALD, F. D.
Geranium, bacterial disease, 221
Gibberella saubinetii, 285, 287, 288, 295, 297, 303
GIDDINGS, N. J., and BERG, ANTHONY, Field studies of apple rust (abstract), 401
GILBERT, E. M., Fungus-host relationship in black knot (abstract), 402
GILBERT, W. W., see JONES, L. R.
GILMAN, J. C., The relation of temperature to the infection of cabbage by Fusarium conglutinans Wollenw. (abstract), 404
Ginseng, 33; Phytophthora on, 44; wilt of, 393
Gliocephalum, 393
Gliocladium, 393
Gloeoporus, 274; conchoides, 274
Gloeosporium venetum, 407
Glomerella, 115, 116; cingulata, 403; rufomaculans, 218, 219
GLOYER, W. O., Stem rot and leaf spot of Clematis (abstract), 39; see also STEWART, F. C.
Golden seal, nematodes on, 33
Gooseberry, mildew, 14
Grain, black head, 190
Grape, 75; Cladosporium on, 190
Grape fruit, canker, 397
Grasses, anthracnose of, 106–112

Grass rusts, relation to cereal rusts, 411
GRAVES, ARTHUR H., Notes on diseases of trees in southern Appalachians. II, 5; III, 63; Fomes laricis in California, 33
GREGORY, C. T., Studies on Plasmopara viticola (abstract), 399
Guignardia bidwellii, introduction into France, 13
Gum diseases, of Citrus, 54
Gum formation, induced by chemicals, 53
Gummosis, induced by fungi in Citrus, 54
Güssow, H. T., Triseptate spores in Claviceps, 386
Gymnosporangium blasdaleanum, 41, 261, 262, 263, 266, 267, 268; libocedri, 262; sorbi, 262
Gypsy moth, 14

HARTER, L. L. and FIELD, ETHEL C., The stem rot of the sweet potato (Ipomoea batatas), 279–304
HARTLEY, CARL, Notes on soil disinfection (abstract), 398; and MERRILL, T. C., Preliminary tests of disinfectants in controlling damping-off in various nursery soils, 89–92
Haw, blossom blight on, 29
HEALD, F. D., A little-known disease of chestnut and oak trees (abstract), 49; and STUDHALTER, R. A., The longevity of pycnospores and ascospores of Endothia parasitica under artificial conditions (abstract), 401; and GARDNER, M. W., and STUDHALTER, R. A., Wind dissemination of ascospores of the chestnut blight fungus (abstract), 51
Heart rot, 185, 186, 271; of Picea rubens, 69; of Pinus virginiana, 9
HEDGCOCK, G. H., Notes on some diseases of trees in our national forests, IV, 181–188
Heliotropism, negative, of germ tubes of Puccinia rhamni, 407
Helminthosporium gramineum, 46; sativum, 46; teres, 46, 408
Hemlock, diseases of, 69–72; leaf rust, 70; timber rot, 69: twig blight, 70
HENDERSON, M. P., Some observations and experiments on the black-leg disease of cabbage (abstract), 46
Herbaceous plants, lightning injury to, 406
Herpotrichia nigra, 71, 181, 182, 183
HESLER, L. R., Biological strains of Sphaeropsis malorum (abstract), 45
Heterodera radicicola, cultures of, 323; schachtii, 326
HEWITT, J. LEE, A disease involving the dropping of cotton bolls, 327–332
Heyderia decurrens, 41, 262, 263, 266
HIGGINS, B. B., A wilt disease of Japanese and hybrid plums (abstract), 398
Histology, pathological of the Endothia canker, 191–200
Holcus lanatus, 107, 111
Hollyhock, rust, 15
Hop, mildew, 400
Hordeum jubatum, 411, inoculations from barberry rust, 21; vulgare, 110
HORNE, WM. T., Note on organization of the Western American Phytopathological Society, 386
Horse chestnut, leaf blight, 399
Humidity, relation to fungous diseases, 16
HUNGERFORD, CHAS. W., Wintering of timothy rust in Wisconsin, 337–338
Hyacinths, nematodes on, 45
Hydnum caput-ursi, 272; coralloides, 272; erinaceus, 272
Hydrochloric acid, for damping-off, 89
Hydrocyanic acid, injurious to tobacco, 118
Hymenochaete tabacina, 272
Hypochnus solani, 406
Hypomyces ipomoeae, 280

Ice, damage to scrub pine, 10
Infection experiments, corn smut, 411; peach scab, 408
Injection of chemicals into chestnut trees, effects of, 412
Inoculation experiments, barberry rust on various hosts, 21; brown-rot fungus, 99; Fusaria, 287; Pestalozzia, 380; timothy rust on various hosts, 21

Insects, agents in dissemination, stem rot of sweet potato, 301; carriers of the chestnut-blight fungus, 52; hymenopterous in rot cavities caused by Trametes pini, 385
Inspection, potato seed stock, 39
International Institute of Agriculture, 11
Ipomoea batatas, 287, 298, stem rot of, 279; coccinea, 287, 296; hederacea, 285, 287, 293, 296, 303; lacunosa, 287, 296; purpurea, 287, 296

JACKSON, H. S., A new rust of economic importance occurring on pomaceous hosts (abstract), 41; A new pomaceous rust of economic importance, Gymnosporangium blasdaleanum, 261–269
JACZEWSKI, A. A. VON, Classification of fungi (Review), 119
JAGGER, IVAN C., A bacterial leaf spot disease of celery (abstract), 395
Java black rot, sweet potato, 50
JENNISON, H. M., Symbols vs. terminology in ascomycetes, 216
JOHNSON, A. G., Experiments on the control of certain barley diseases (abstract), 46; The ascigerous stage of Helminthosporium teres Sacc. (abstract), 408
JOHNSON, JAMES, Disease resistance in tobacco to root-rot (abstract), 48; Resistance in tobacco to hydrocyanic acid gas injury, 118
Jonathan spot, 402, 403, 405, 406
JONES, FRED R., Perithecia in cultures of Venturia inaequalis (abstract), 52
JONES, L. R., Progress in developing disease resistant cabbage (abstract), 47; Third progress report on Fusarium resistant cabbage (abstract), 404; and GILBERT, W. W., Lightning injury to cotton and potato plants (abstract), 406
Juniperaceae, 408
Juniperus, 181, 375; californicum, 187; communis, 182, 183; monosperma, 187; occidentalis, 187; pachyphloea, 187; sabinoides, 187; utahensis, 187; virginiana, 187, 274

KEEFER, W. E., Pathological histology of the Endothia canker of chestnut, 191–200
KEITT, G. W., A preliminary report on fruit infection of the peach by means of inoculations with Cladosporium carpophilum Thüm. from peach twigs (abstract), 49; a preliminary report on twig and leaf infection of the peach by means of inoculations with Cladosporium carpophilum Thüm. (abstract), 408

Laestadia aesculi, 399
Lappa major, 142
Larix laricina, 184, 187; lyalli, 184, 186; occidentalis, 66, 184, 187, 272, 273, 274
Lasiodiplodia, non-validity of the genus, 47; nigra, 47; tubericola, 47, 50
Late blight, potato, 54
Late spring, relation to blossom blight, 30
Lead arsenate, 44
Leaf anthracnose, ginseng, 376
Leaf cast, Pinus virginiana, 9
Leaf roll, potato, 40
Leaf rust, hemlock, 70
Leaf spot, celery, 385; Clematis, 39; peanut, 397; sweet potato, 51, 320
Leaf spots, photographing, 215
Leak, potato, 306
Lemon, gummosis of, 54
Lenzites sepiaria, 275
Lepidium virginicum, 47
Leptostylus macula, 52
LEWIS, I. M., A bacterial disease of Erodium and Pelargonium, 221–231
Libocedrus decurrens, 41, 182, 183, 262
Lightning, injury to cotton and potato plants, 406
Lime, effects on blossom-end rot of tomato, 364; powdered with copper sulphate, tested for damping-off, 77, 79; ratio to copper sulphate in various Bordeaux mixtures, 128
Lime-sulphur, 44; for apple scab, 42; for damping-off, 80
LINT, H. CLAY, The use of sulphur for the control of potato scab (abstract), 396

Liriodendron, 274
Literature on plant diseases, 207–214, 341–344, 388–391, 414–417
Lolium perenne, 107, 111
LONG, W. H., A preliminary note on the cause of "pecky" cypress, 39
Longevity of pycnospores of chestnut blight fungus in soil, 51; of spores of Endothia parasitica under artificial conditions, 401; of mycelium of Rhizopus, 312
Lycopersicum esculentum, 287, 296

Macrosporium, 64, 297, 348; solani, 345; tomato, 345
Magnolia, 39; foetida, Pestalozzia blight of, 376
Mal di gomma, 54
Malus floribundus, 41, 265, 267; malus, 41, 267; rivularis, 41, 262, 265, 266, 267
Manure, dissemination agent, stem rot of sweet potato, 301; effect on blossom-end rot, tomato, 357
Maple, 39, 185; Nectria on, 396; root disease, 40; thrombotic disease, 395
MARTIN, G. W., Orchard experiments with Jonathan spot rot in 1914 (abstract), 406; see also COOK, MEL T.
MASSEY, A. B., Citrus canker (abstract), 397
MCCLINTOCK, J. A., Is golden seal resistant to the root knot nematode? 33
MCCUBIN, W. A., Photographing leaf spots, 215; For washing small objects, 216
MCKAY, M. B., see POOL, VENUS W.
MEHLUS, I. E., A Phoma rot of Irish potatoes (abstract), 41; a study of the annual recurrence of Phytophthora infestans (abstract), 54; a species of Rhizophidium parasitic on the oospores of various Peronosporaceae, 55
Melanops quercuum, perfect stage of Sphaeropsis malorum, 49; quercuum vitis, 48, 49
MELCHERS, LEO E., The plaster cast apple specimen, 113–114
Melica uniflora, 107, 108, 111
Melilotus, stems for culture of Fusaria, 286
Melters, potatoes, 306
MERCER, W. H., Investigations of timothy rust in North Dakota during 1913, 20
Mercuric chloride, for damping-off, 90
MERRILL, T. C., see HARTLEY, CARL
Micrococcus amylovorus, 31, 33
Mildew, hop, 400
MILLARDET, PIERRE-MARIE-ALEXIS, biography of, 1
Milkweed, anthracnose of, 410
Mites, exclusion from pure cultures, 394
Monilia, 403
Moniliochaetes infuscans, 405
Morning glory, wild, 303
Mosaic, 42; disease of tomato, 398
Moss, fungus parasite of, 407
Mucor, 54, 55; stolonifer, 403
Mulberry blight, organism of, 34; identity of French and American, 34
MURRILL, W. A., How to know the Polypores (abstract), 409
Mutation in Phyllosticta, 396
Myrica asplenifolia, rust on, 9

Nectria, 279, 317, 340, 396; cinnabarina, 339, 340, 396; coccinea, 396; ipomoeae, 50, 279, 280, 284, 285, 287, 288, 289, 298, 303, 313, 314, 317
Nematodes, cultivation of, 323; on golden seal, 33; on hyacinths, 45; on oats, 118; on rye, 118; on various hosts, 45
Neocosmospora vasinfecta, 397
Neofabrea malicorticis, 217
Neopeckia coulteri, 71, 181, 183
Neutralizing acid treated soils, 92
Nitric acid for damping-off, 89
NORTON, J. B. S., Hosts of brown-rot Sclerotinia (abstract), 398; Loss from mosaic disease of tomato (abstract), 398; Resistance to Cladosporium fulvum in tomato varieties (abstract), 398
Nursery soils, damping-off in, 89
Nyssa sylvatica, 186

Oak, 75; leaf spot, 396; little-known disease, 49; Polyporus on, 273
Oats, 411; nematodes on, 118

O'GARA, P. J., An anthracnose of Asclepias speciosa caused by a new species of Colletotrichum (abstract), 410; a disease of the underground stems of Irish potatoes caused by a new species of Colletotrichum (abstract), 410; A disease of red clover and alsike clover caused by a new species of Colletotrichum (abstract), 410
Okra, Verticillium wilt of, 393; wilt diseases of, 40
Onion, 75
Oospora lactis, 312, 313, 315
Oospores, difficulty in germinating, 55
Oosporoidea lactis, 312, 313, 315
Orange, susceptibility to fungous gummosis, 54
Orange, hardy, canker of, 397
Orchid, 75
ORTON, C. R., and ADAMS, J. F., Notes on Peridermium from Pennsylvania, 23–26; Collar-blight of apple trees in Pennsylvania (abstract), 43
ORTON, W. A., Biological basis of international phytopathology, 11; Inspection and certification of potato seed stock (abstract), 39; The fungus genus Verticillium in its relation to plant diseases (abstract), 40; The potato study trip of 1914 (abstract), 412
Osmotic pressure in cell sap of tomato fruits, 366
Overheating of soil, effect on potatoes, 395

Panax quinquefolia, Phytophthora on, 44
Panicum crus-galli, 108, 109, 111; sanguinale, 107, 111; virgatum, 109, 111
Paper pulp, Fusarium from, 75
Paxillus atratomentosus, 276
Peach, 75, 398; nursery disease due to Sphaeropsis, 394; scab, 408, artificial infection, 49, 408; barium sulphide as spray for, 412, controlled by sulphur, 394
Peanut, fruit rot, 397; leaf spot, 397
Pear, 398; blight, 27; blossom blight, 29; brown blotch, 394; rust, 41; stigmonose, 402; twig blight, 28
Pecky cypress, 39
Pectinase, 38
PELTIER, GEO. L., Rhizoctonia in America (abstract), 406; and REES, C. C., A new rust of economic importance on the cultivated snapdragon (abstract), 400
Penicillium, 293, 297, 299, 348; commune, 403; digitatum, 54; expansum, 403; italicum, 54; pinophilum, 403; roseum, 54
Pepper, mosaic of, 42
Peridermium, 23; acicolum, 25, new hosts for, 26; betheli, 25; cerebrum, 7, 8; comptoniae, 2, 4; pyriforme, 23, 24, 25, 26; strobi, 43
Peronospora effusa, 60; parasitica, 388
Peronosporaceae, Rhizophidium as a parasite of, 55–62
Pestalozzia, 67, 297; brevipes, 403; funerea, 67, 68, morphology and life history, 375; funerea typica, 377; guepini, 376, 403; guepini vaccinii, 376; hartigii, 375, 376; palmarum, 376
Phleum pratensis, 22
Phlyctidium pollinis, 56
Pholiota adiposa, 276; destruens, 276
Phomopsis mali, 403
Phoma acicola, 376; cause of Citrus canker, 397; cause of potato rot, 41; fuckelii, 66; minutula, 66; piceina, 66; piceana, 68; on spruce seedlings, 63, 64, 66
Phyllosticta, 396; paviae, perfect stage of, 399
Phytobacter lycopersicum, 348
Phytopathological Society, American, fifth annual meeting, 36; amendment to the constitution, 37; Western American, organization of, 386
Phytopathological literature, announcement, 124
Phytopathology, biological basis of international, 11; international, relation to commerce, 18
Phytophthora, 40, 394; arecae, 387; erythroseptica, 387; on ginseng, 44; infestans, 387, recurrence from infected seed, 54; per cent of cupric sulphate toxic to spores, 138, introduction from South America, 15; omnivora, 74, 77

Phylloxera, 13
Picea, 63, 181, 271; abies, 63, 64, 380; canadensis, 184, 186, 187; engelmanni, 77, 82, 182, 184, 187, 271, 273; excelsa, 82; mariana, 184, 186, 187; parryana, 77, 82, 184, 186, 187; rubens, 63, 69, 184, 186, 187; sitchensis, 184, 187
PIEMEISEL, FRANK J., Some facts in the life history of Ustilago zeae (Beckm.) Unger. (abstract), 411
Pine seedlings, damping-off of, 89–92; soil disinfection for, 398
Pine, white, blister rust, 41, 43
Pink rot, celery, 45
Pinus, 181, 271; albicaulis, 183, 184; aristata, 184; arizonica, 184, 187; attenuata, 184, 186; austriaca, 24; balfouriana, 183; cembroides, 184, 186; chihuahuana, 184, 186; contorta, 25, 183, 184, 187, 408; divaricata, 67, 75, 184, 187, 375; echinata, 23, 24, 184; edulis, 184, 186; excelsa, blister rust on, 42; flexilis, 183, 184, 187; glabra, 184, 186; jeffreyi, 184, 186; lambertiana, 184; laricio, 409; maritina, 24; mayriana, 184, 186; monophylla, 184, 186; montana, 24; monticola, 183, 184, 273, 274; palustris, 184; ponderosa, 24, 67, 74, 75, 77, 79, 82, 83, 184, 187, 375, 409; pungens, 24, 26; resinosa, 82, 184, 187; rigida, 23, 24, 26, 184, 186, 408; sabiniana, 184, 186; strobiformis, 184, 187; strobus, 75, 82, 84, 184, 187, 375, 376, 380; sylvestris, 75, 78, 79, 82, 84, 273, Peridermium on, 23, 24; pollen infested by Chytridium, 56, 57, 61; taeda, 24, 184; virginiana, 24, Cronartium quercus on, 6, Cronartium comptoniae on, 8, Coleosporium inconspicuum on, 9, damage from wind, 9, from ice and snow, 10, Gallowaya pini on, 9, Trametes pini on, 9, unfavorable soil conditions for, 10
Pit, sweet potato, 405
Pithiacystis citrophthora, cause of gum disease, 54
Plant disease survey, 403; object of, 17
Plant diseases of America, literature on, 207–214, 341–344, 388–391, 414–417
Plant pests, introduced, 13, 14, 15
Plasmopara viticola, introduction into France, 13; per cent of cupric sulphate toxic to spores, 138; studies on, 399
Plaster casts, of apples, 113–114
Plectodiscella piri, 407
Plectodiscelleae, 407
Pleospora, 408
Pleurotus serotinus, 276
Plowrightia morbosa, 339
Plum, 398; black knot on, 339, 340; inoculations with Sclerotinia on, 100; Polystictus on, 275; stigmonose of, 402; wilt disease of, 398
Plum, wild, Fomes igniarius on, 339
Plyctidium, 56
Poa, 108; compressa, 411; nemoralis, 411; pratensis, 411, rust inoculation on, 22
Podophyllum, 75
Point rot, tomatoes, 345
Polyembryony, Razoumofskya americana, 385; douglasii, 385
Polypores, descriptive handbooks of, 409
Polyporus adustus, 273; alboluteus, 271; benzoinus, 274, berkeleyi, 273; borealis, 271; caesius, 274; carneus, 186; chioneus, 273; dichrous, 274; frondosus, 273; giganteus, 273; gilvus, 274; picipes, 273; ponderosus, 184; resinosus, 274; schweinitzii, 69, 184, 186, 187; umbellatus, 273; varius, 273
Polystictus aurantiacus, 274; cinnabarinus, 274; hirsutus, 274, 275, 339; versicolor, 274
POOL, VENUS W. and MCKAY, M. B., Puccinia subnitens on the sugar beet, 204–206
Poplar, crown-gall on, 201
Populus, 272, 273, 274, 275, 339; alba, 186, 276; balsamifera, 184; deltoides, 276; fremontii, 186; grandidentata, 184; heterophylla, 186; tremuloides, 184, 185, 275, 276; trichocarpa, 184, 185, 275, 276; wislizeni, 186
Porthetria dispar, introduction from Europe, 14
Potato, 75; bacterial wilt, 277; black leg, 40; curly dwarf, 40; Fusaria on, 40, 43; Fusarium dry rot, 40; Fusarium wilt, 40; late blight of, 54; leaf roll, 40; leak, 306; melters, 306; mushroom

Potato, root rot, 322; new disease of underground stems, 410; Oospora scab, 40; Phoma rot, 41; pink rot, 387; powdery scab, 40; Rhizoctonia, 220; rot caused by Phytophthora arecae 387; scab, use of sulphur for, 396; silver scurf, 40; southern brown rot, 40; spindling sprout disease, 395; study trip of 1914, 412; tubers injured by formaldehyde, 38; Verticillium wilt, 40, 393; wart, 40
Potato diseases, 321, 322
Potato plants, lightning injury, 406
Potato seed stock, inspection and certification, 39
Potassium permanganate, for damping-off, 77, 78, 79
Potassium sulphide, for damping-off, 77
Pourthiaea villosa, 262
Powdery scab, potato, 40
Pox, sweet potato, 405
Protomyces graminicola, 55
Prunus, 274, 339; demissa, 275, 340; emarginata, 340; pennsylvanica, 340; serotina, 184, 185, 275, 398; subcordata, 340
Pseudomonas campestris, 401; tumefaciens, 202
Pseudotsuga douglasii, 375; mucronata, 75; taxifolia, 184, 273, 274, 275, Sclerotinia fuckeliana on, 65
Psilonia apalospora, 107, 110, 112
Psorosis, 54
Ptychogaster, 273
Puccinia antirrhini, 400; asparagi, 14; graminis, 20, 400, 411; graminis tritici, 400; malvacearum, 15; phlei-pratensis, 20; rhamni, 407; subnitens, 204
Pucciniastrum myrtilli, cause of leaf rust of hemlocks, 70
Pumpkin, 75
Pyrenophora, 408
Pyrox, 394
Pyrus arbutifolia, 398; betulifolia, 398; communis, 41, 263, 266, 267, 407; coronaria, 52; malus, 186, 275, 407
Pythium, 74; debaryanum, 77, cause of damping-off of pine seedlings, 89

Quercus, alba, 238, 274; coccinea, 238; digitata, 185; nigra, 185; pagodaefolia, 186; pedunculata, 275; prinus, 44, 238; rubra, 186, 238
Quercus, Cronartium quercus on, 7, 8
Quince, blossom blight, 27; rot, 306; rust, 41, 261, 264

Ramularia macrospora, 403
RANKIN, W. H., Sphaeropsis canker of Quercus prinus (abstract), 44; Field studies on the Endothia canker of the chestnut in New York State, 233–259; Thrombotic disease of maple (abstract), 395; see also STEWART, F. C.
Raspberry, anthracnose, perfect stage, 407; black, 75; red, 75
Razoumofskya cryptopoda, 385
REDDICK, D., Decay of celery in storage (abstract), 45
REED, GEO. M., An unusual outbreak of apple blossom blight, 27
REED, H. S., York spot and York skin-crack (abstract), 405
REES, C. C., see PELTIER, GEO. L.
REES, H. L., Bitter rot of apples in the Pacific Northwest, 217–219
Resistance, cabbage to yellows, 404; sweet potatoes to soft rot, 310
Rheum palmatum, 142
Rhizidomyces, 59
Rhizoctonia, 40, 74, 77, 405, 411; in America, 406; on egg plant, 38; on potato, 202; solani, 406; violacea, 406
Rhizophidium, 55, 56; pollinis, development and escape of swarm spores, 58, 59, infection experiments, 60, parasite of oospores of Peronosporaceae, 55
Rhizophyton, 56
Rhizopus, 299, 300; nigricans, 51, 306, 307, 308, 309, 310, 313, 314, conditions for fruiting, 311
Rhizopus, spores infected by Rhizophidium, 60
Rhododendron, Pestalozzia blight of, 376
Ribes, 41; nigrum, 41, Cronartium ribicola on, 43
Ring rot, sweet potato, 51, 279, 306, 313; by Trametes pini, 385
Ring scale, by Trametes pini, 385
Root-knot, ginseng, 33; golden seal, 33
Root rot, resistance of tobacco to, 48

Rosa, 398
ROSE, R. C., see STAKMAN, E. C.
Rose, moss, 75; rust, 20
Rosellinia, cause of twig blight of hemlocks, 70–72; quercina, 72; subiculata, 72
ROSENBAUM, JOSEPH, Some points in the life history of Phytophthora on ginseng (abstract), 44; Phytophthora arecae causing a rot of potato tubers, 387; Studies in the genus Phytophthora (abstract), 394
Rot, pocketed, 187, 188
Rubus occidentalis, 398
RUMBOLD, CAROLINE, Some effects on chestnut trees of the injection of chemicals (abstract), 412
Rust, 41; apple, spraying experiments for, 401; blister, 41; diseases of scrub pine, 6–9, of various pines in Pennsylvania, 23–26; new, of importance, 261; snapdragon, 400; timothy, 337
Rye, 411; nematodes on, 118

Salix, 272, 273, 274, 276, 339; discolor, 276; lasiandra, 275, 276
Sambucus glauca, Nectria destructive to, 340
San José scale, fungus parasite of, 217
Sap rot, of conifers, 184; of deciduous trees, 185
Sap rots, 271
Scab, apple, 52; Oospora, 40; potato, use of sulphur for, 396; peach, 49; powdery, potato, 40
Scale, apple, 403
Scale, San José, 412; oyster shell, 412
SCHWARZE, CARL A., Relation of the mosaic of the pepper and the filiform leaf of the tomato to the mosaic of the tobacco (abstract), 42; An unreported fungus on the oak (abstract), 396; see also COOK, MEL T.
Scleropycnis abietina, 64
Sclerospora graminicola, 55, 57, 60
Sclerotinia cinerea, 93, 94, 95, 100; fructigena, 93, 94, 95, 100; fuckeliana, on spruce seedlings, 63, 65; libertiana, cause of celery rot, 45
Sclerotium bataticola, 50, 305, 306, 312; rolfsii, 197
SCOTT, W. M., A promising new fungicide (abstract), 412
Scurf, silver, 40; sweet potato, 405
Secale cereale, 112; rust inoculation on, 22
Seedlings, coniferous, damping-off of, 73–87; pine, injury by fungicides, 91; spruce, blight of, 63–66
Seed selection, in control of stem rot of sweet potato, 302
Seeds, diembryonic in Razoumofskya, 385
Septoria bataticola, cause of leaf spot of sweet potato, 51, 320; parasitica, 64; petroselina, 45
Sequoia sempervirens, 66; washingtoniana, 66
SHAPOVALOV, MICHAEL, Opredielitel gribov, JACZEWSKI, A. A. VON (Review), 119–121
SHEAR, C. L., Life history of Sphaeropsis malorum Berk. (abstract), 48; Bibliographical citations (abstract), 53
SHERBAKOFF, C. D., Fusaria of potatoes (abstract), 43
Silver scurf, potatoes, 40
SINNOTT, E. W. and BAILEY, I. W., Some technical aids for the anatomical study of decaying wood (abstract), 403
Skin-crack, York Imperial apple, 405
Smut, barley, 46; corn, infection experiments, 411
SMITH, ERWIN F., Identity of the American and French mulberry blight, 34
Snapdragon, rust, 400; Verticillium wilt, 217, 393
Snow, damage to scrub pine from, 10
Soft rot, sweet potato, 306; relation of moisture to, 308, odor, 311
Soil, agent in dissemination, stem rot, sweet potato, 301; cabbage sick, 404; disinfection, notes on, 398; influence on damping-off of coniferous seedlings, 83; management, influence on damping-off of coniferous seedlings, 83; relation to blossom-end rot of tomato, 356; unfavorable for scrub pine, 10

Soil rot, sweet potato, 405
Soil stain, sweet potato, 405
Solanum tuberosum, 287, 296, Fusarium species on, 43; melongena, 287, 288, 296, 298
Solidago, 25
Sorbus aucuparia, 262; hybrida, 41, 261; occidentalis, 262; sambucifolia, 41, 264, 267; scopulina, 262; spuria, 261, 264, 267
Sorghum, 108, 109, 111; saccharum, 109, 111
Southern bacterial wilt, 277
Southern brown rot, potato, 40
SPAULDING, PERLEY, Notes on the white pine blister rust (abstract), 41; Notes on Cronartium comptoniae and C. ribicola (abstract), 409; The damping-off of coniferous seedlings, 73–87
Sphaeronema fimbriatum, 50, 279, 305, 318
Sphaeropsis abundans, 45; on chestnut oak, 44; on peach, 394; malorum, 45, 403, biological strains, 45, life history, 48–49; viticola, 48
Sphaerostilbe coccophila, 217
Sphaerostytidium, 56
Sphaerotheca humuli, 400; mors-uvae, 14
Spindling sprout disease, potatoes, 395
Spondylocladium atrovirens, 321
Spores, isolation of single, 115
Spot, York Imperial apple, 405
Spot rot, Jonathan apples, 102–105
Spraying compared with dusting, 44
Spruce, blight of seedlings, 63; diseases, 63–68; Douglas, 65; Engelmann, 187, treated for damping-off, 91; frost injury, 69; heart rot, 69; Norway, 64, twig blight, 67; Polyporus on, 273; twig blight, 67
Squash, 75
STAKMAN, E. C., The relation between Puccinia graminis and host plants immune to its attack (abstract), 400; A preliminary report on the relation of grass rusts to the cereal, rust problem (abstract), 411; and ROSE, R. C., A fruit spot of the Wealthy apple, 333–335
Steirochaete graminicola, 110
Stem blight, potato, 277
Stem rot, Clematis, 39; egg-plant, 279; sweet potato, 279–304
Stereum hirsutum, 272, 275, 339; purpureum, 272
Sterile water, use for catching spores in the field, 51
STEVENS, F. L., Some problems of plant pathology in reference to transportation (abstract), 410
STEWART, F. C., The spindling sprout disease of potatoes (abstract), 395; and GLOYER, W. O., Formaldehyde gas injury to potato tubers (abstract), 38–39; and RANKIN, W. H., Can Cronartium ribicola over-winter on the currant? (abstract), 43
STEWART, V. B., Specific name of the fire blight organism, 32; The perfect stage of Phyllosticta paviae Desm. (abstract), 399
Stigmonose, 402, 403
Strawberry, 398
Stripe disease, barley, hot water treatment of seed, 45; formaldehyde treatment, 45
Strumella coryneoidea, on chestnut, 49; on oak species, 49
STUDHALTER, R. A., see HEALD, F. D.
Stysanus stemonitis, 321
Sugar, effect on blossom-end rot, tomato, 363
Sugar beet, 75, 204
Sulphur, for apple scab, 44; for damping-off, 77, 79, 80; for hop mildew, 400; for peach scab, 394; for potato scab, 396
Sulphuric acid, for damping-off, 77, 78, 79, 80, 81, 82, 89, 90, 91, 92
Sulphurous acid, for damping-off, 80
Sweet fern, rust on, 23
Sweet gale, rust on, 23
Sweet gum, 39
Sweet pea, 75
Sweet potato, 75; black rot, 50, 279, 305, 318; black shank, 318; charcoal rot, 50, 305; Diplodia species on, 47; end rot, 284, 285; Java black rot, 50; leaf spot, 50, new, 320; pit, 405; pox, 405;

Sweet potato, ring rot, 51, 279, 285, 306, 313; scurf, 405; soft rot, 306, 318; soil rot, 317, 405; soil stain, 405; stem rot, 50, 279, 317; storage rot, 299; vine wilt, 317; white rust, 50; wilt, 317
Sweet potatoes, resistance to soft rot, 310
Symbols, use in designating stages of fungi, 216
Syntherisma sanguinale, 111

Tarnished plant bugs, relation to celery decay, 45
TAUBENHAUS, J. J., The non-validity of the genus Lasiodiplodia (abstract), 47; Some recent studies on new or little-known diseases of the sweet potato (abstract), 50, (article), 305–320; Soil stain and pox, two little-known diseases of the sweet potato (abstract), 405
Tea, Pestalozzia blight, 376
Temperature, relation to blossom blight, 30; to fungous diseases, 16; to ascospore expulsion of Endothia parasitica, 52; to infection of cabbage by Fusarium conglutinans, 404
Thielavia basicola, 75; cause of tobacco root rot, 48
Thrombotic disease, maple, 395
Thuja menziesii, 375; occidentalis, 67, 375; plicata, 186, 273, 274
Tilia europaea, 77; ulmifolia, 77
Timber rot, hemlocks, 69
Timothy, rust, 337; inoculations with Puccinia graminis negative, 22
Tobacco, 75; injury by hydrocyanic acid gas, 118; mosaic, 42; resistance to root rot, 48
Tomato, 75; blossom-end rot, 49, 345; filiform leaf, 42; mosaic disease, 398; point rot, 345; resistance to Cladosporium fulvum, 398
Toxin, secreted by Rhizopus, 307
Trametes abietis, 272; piceinus, 272; pini, 6, 9, 69, 186, 272, 385; suaveolens, 273
Transportation, commercial, relation to plant pathology, 410
Traumatisms, relation to blossom-end rot of tomato, 367
Trees, diseases of, 63, 181–188
Trifolium hybridum, 410; pratense, 286, 287, 410
Trichoderma, 403; köningi, 51, 313, 314
Trichothecium, 393
Tripsacum dactyloides, 107, 111
Triticum spelta, 110; vulgare, 21, 111
Tsuga, 271; canadensis, 69, 70, 184, 187, 380; caroliniana, 69, 70; heterophylla, 66, 184, 187, 272, 273, 274, 275; mertensiana, 182, 183, 184
Tupelo gum, 39
Twig blight, apples and pears, 27, 28; hemlock, 70; Norway spruce, 375; spruce, 67
Tylenchus dipsaci, 118, new to America, 45; devastatrix, 45
Typhula muscicola, 407
Tyroglyphus, 394

Uredo nootkatensis, 262, 408
Ustilago zeae, 411

Venturia inaequalis, perithecia in cultures, 52
Vermicularia, 106, 108, 110; affinis, 108; culmigena, 107, 110, 112; graminicola, 108; holci, 107, 110, 112; lolii, 107, 109, 110, 112; melicae, 107, 112; sanguinea, 108, 110
Verticillium, 393, 403; alboatrum, 40, 298, 393; dahliae, 40, 393; on maple roots, 40; on okra, 40; wilt, 40, of snapdragon, 217
Viscum album, 385
Vitis rotundifolia, resistant to black rot, 13; vinifera, susceptible to downy mildew, 13

WAITE, M. B., Stigmonose: a disease of fruits (abstract), 402
WALTON, R. C., The relation of temperature to the expulsion of ascospores of Endothia parasitica (abstract), 52
Water, agent in dissemination of stem rot, sweet potato, 301
Watermelon, 75

WEIR, JAMES R., Notes on wood destroying fungi which grow on both coniferous and deciduous trees, I, 271–276; An unusual host of Fomes fomentarius, 339; Cankers of Plowrightia morbosa in their relation to other fungi, 339; The cavities in the rot of Trametes pini as a home for hymenopterous insects, 385; The polyembryony of Razoumofskya species, 385
WENNER, JOHN J., A contribution to the morphology and life history of Pestalozzia funerea, 375–384
Wheat, 21, 22, 411; rust, 400
White pine, 75; blister rust of, 41
White rust, sweet potato, 51
Wild crab, scab of, 52
WILSON, GUY WEST, The identity of the anthracnoses of the grasses in the United States, 106–112; see also COOK, MEL T.
Wilt, bacterial of potatoes, 277; Fusarium, 40; plum, 398; Verticillium, 40, 393
Wind, agent in dissemination, stem rot sweet potato, 301, chestnut blight fungus, 51; damage to scrub pine from, 9
WINSTON, J. R., see FULTON, H. R.
Winter temperature, possible relation to Missouri outbreak of apple blossom blight, 30
Witches' brooms, on cedars, 268
WOLF, FREDERICK A., Fruit rots of egg plants (abstract), 38; Leaf spot and some fruit rots of the peanut (abstract), 397
Wood-destroying fungi, 271

Xanthium, 393

Yellows, cabbage, 404

Zea mays, 106, 107, 111
Zinc chloride, for damping-off, 89, 90, 92